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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,319	11/19/2001	Kazuya Ozaki	F-11800	8441

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EXAMINER

PHAM, TUAN

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,319

Applicant(s)

OZAKI, KAZUYA

Examiner

TUAN A. PHAM

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 4, 6, 8-9, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Gray (U.S. Patent No.: 5,485,517).**

Regarding claims 1, and 8-9, Gray teaches an opening/closing type portable information terminal equipped with a display portion housing having a display portion (see figure 1, figure 2, figure 3, display portion housing 12, display 220, opening position at figure 2, closing position at figure 3, col.5, ln.52-67, col.6, ln.1-15) and an operating portion housing having an operating portion (see figure 2, operating portion housing 14, operation portion 24, col.6, ln.1-29), characterized in that an end portion of the display portion housing is linked to an end portion of the operating portion housing by a rotating mechanism (see figure 2, swivel hinge 16, col.5, ln.55-60) under a state that a face of the display portion of the display portion housing is maintained to orient in a same side as a face of the operating portion of the operating portion housing so that the display portion housing is rotatable relative to the operating portion housing around the rotational axis of the rotating mechanism (see figure 2, figures 9-11, col.5, ln.13-67, col.6, ln.1-67) and so that the display portion housing rotates through an arc that is substantially parallel to the face of the operating portion at closed position (see figure 2,

figures 9-11, LCD 20, col.6, ln.1-67), wherein the rotation axis maintains an acute angle with at least one of the face of the operating portion and the face of the display portion (see figure 2, rotation axis 44, the keypad 24 has an incline surface when the display portion rotate around the pivot 16 that will maintains an acute angle with less than 90 degree, col.6, ln.45-60).

Regarding claim 4, Gray further teaches the opening/closing type portable information terminal wherein the rotating mechanism is disposed while inclined with respect to the face of the operating portion, and a predetermined angle is kept between the face of the display portion and the face of the operating portion under the state that the display portion housing and the operating portion housing are opened (see figure 2, rotation axis 44, the keypad 24 has an incline surface when the display portion rotate around the pivot 16 that will maintains an acute angle with less than 90 degree, col.6, ln.45-60).

Regarding claim 6, Gray further teaches the opening/closing type portable information terminal wherein a spring is provided around the rotating mechanism to press the display portion housing and the operating portion housing outwardly (see figure 8, col.8, ln.1-37).

Regarding claim 13, Gray further teaches the terminal comprising an inclined surface that forms an obtuse angle with the face of the operating portion and wherein the axis of rotation is substantially perpendicular to the inclined surface (see figure 2, rotation axis 44, col.6, ln.45-60).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 2-3, 5, 7, 10-12, 14-16, 18, and 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (U.S. Patent No.: 5,485,517) in view of Kfoury (U.S. Patent No.: 6,549,789).**

Regarding claims 2 and 10, Gray teaches an opening/closing type portable information terminal equipped with a display portion housing having a display portion (see figure 1, figure 2, figure 3, display portion housing 12, display 220, opening position at figure 2, closing position at figure 3, col.5, ln.52-67, col.6, ln.1-15) and an operating portion housing having an operating portion (see figure 2, operating portion housing 14, operation portion 24, col.6, ln.1-29), characterized in that an end portion of the display portion housing is linked to an end portion of the operating portion housing by a rotating mechanism (see figure 2, swivel hinge 16, col.5, ln.55-60) under a state that a face of the display portion of the display portion housing is maintained to orient in a same side as a face of the operating portion of the operating portion housing so that the display portion housing is rotatable relative to the operating portion housing around the rotational axis of the rotating mechanism (see figure 2, figures 9-11, col.5, ln.13-67, col.6, ln.1-67) and so that the display portion housing rotates through an arc that is substantially parallel to the face of the operating portion at closed position (see figure 2,

figures 9-11, LCD 20, col.6, ln.1-67), wherein the rotation axis maintains an acute angle with at least one of the face of the operating portion and the face of the display portion (see figure 2, rotation axis 44, the keypad 24 has an incline surface when the display portion rotate around the pivot 16 that will maintains an acute angle with less than 90 degree, col.6, ln.45-60).

It should be noticed that Gray fails to teach the rotating mechanism comprises a link member that is designed in the form of a cylinder having a cavity portion therein and provided with guide portions projecting outwardly at the upper and lower portions thereof, and the upper and lower guide portions are embedded in the display portion housing and the operating portion housing while pressed against the display portion housing and the operating portion housing. However, Kfoury teaches such features (see figure 3, col.4, ln.52-65).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Gray into view of Kfoury in order to improve the adaptability of user interfaces in portable phone as suggested by Kloury at column 2, lines 13-16.

Regarding claim 3, Kfoury further teaches the opening/closing type portable information terminal wherein a communication cable for electrically connecting circuits located in the display portion housing to circuits located in the operating portion housing passes through the cavity portion of the rotating mechanism (see figure 3, figure 4, col.4, ln.66-67, col.5, ln.1-11).

Regarding claim 5, Kfoury further teaches the opening/closing type portable information terminal wherein one of the upper and lower guide portions of the link member are fixed to any one of the display portion housing and the operating portion housing (see figure 2, figure 3, col.4, ln.33-65).

Regarding claim 7, Kfoury further teaches the opening/closing type portable information terminal wherein the display portion housing is provided with operating keys, which are operable under the state that the display portion housing and the operating portion housing are closed (see figure 12, col.6, ln.1-44).

Regarding claim 11, Kfoury further teaches the terminal comprising wherein one of the upper guide portion and the lower guide portion is embedded in the operating portion and the other of the upper guide portion and the lower guide portion is embedded in the display portion (see figure 3, col.4, ln.52-65).

Regarding claim 12, Kfoury further teaches the terminal comprising a spring that biases the display portion away from the operating portion at the link member (see figure 8, col.6, ln.1-31).

Regarding claim 14, Kfoury further teaches the terminal comprising a face of the display portion forms a predetermined angle with the face of the operation portion at a fully open position (see figure 2, predetermined angle with open, col.4, ln.53-65).

Regarding claim 15, Kfoury further teaches the terminal comprising the predetermined angle is within the range of about 110 to 180 degrees (see figure 2, predetermined angle with open, col.4, ln.53-65).

Regarding claim 16, Kfoury further teaches the terminal comprising the predetermined angle is within the range of about 130 to 170 degrees (see figure 2, predetermined angle with open, col.4, ln.53-65).

Regarding claim 18, Kfoury further teaches the terminal comprising the display portion comprises a liquid crystal display on a surface that faces outwardly when the terminal is in a closed position (see figure 13, LCD 212, col.6, ln.1-20).

Regarding claim 20, Kfoury further teaches the terminal comprising wherein the rotation between the display portion and the operating portion is limited to approximately 180 degrees (see figure 2, angle with open, col.4, ln.53-65).

Regarding claim 21, Kfoury further teaches the terminal comprising a link member that comprises a cylinder having a cavity portion; an upper guide portion projecting outwardly at an upper end of the cylinder and having a groove formed on an outer periphery of the upper guide portion that extends slightly greater than 180 degrees around the rotational axis; and a lower guide portion projecting outwardly at a lower end of the cylinder (see figure 3, col.4, ln.52-65).

Regarding claim 22, Kfoury further teaches the terminal comprising wherein one of the display portion and the operating portion comprises a projection that engages the groove and wherein the cylinder is fixed to the other one of the display portion and the operating portion (see figure 3, col.4, ln.52-65).

5. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gray (U.S. Patent No.: 5,485,517) in view of Kfoury (U.S. Patent No.: 6,549,789) as applied to claim 9 above, and further in view of Lim (U.S. Patent No.: 6,628,974).

Regarding claim 17, Gray and Kfoury, in combination, fails to teach the operating portion comprises an inclined surface that is inclined at an angle of $(180 - \text{predetermined angle})/2$ with respect to the face of the operating portion. However, Lim teaches such features (see figure 27, $(180-0)/2=30$, then $0=120$).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Lim into view of Gray and Kfoury and Ghassabian in order to calculate the angle of the housing of mobile phone when open or close.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable Gray (U.S. Patent No.: 5,485,517) in view of Kfoury (U.S. Patent No.: 6,549,789) as applied to claim 9 above, and further in view of Narayanaswamy et al (U.S. Patent No.: 6,144,358, hereinafter, "Narayanaswamy").

Regarding claim 19, Gray and Kfoury, in combination, fails to teach the display portion comprises operating keys on the surface that faces outwardly when the terminal is in the closed position. However, Narayanaswamy teaches such features (see figure 1A, display 102, plurality of keys).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Narayanaswamy into view of Gray and Kfoury in order to conveniently operate the communication device.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan A. Pham** whose telephone number is (571) 272-8097. The examiner can normally be reached on Monday through Friday, 8:00 AM-5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz can be reached on (571) 272-7499 and

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have question on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit 2643
September 8, 2005
Examiner

Tuan Pham


CURTIS KUNTZ
SUPERVISORY PATENT EXAMINER
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